

REMARKS

Reconsideration of this application is respectfully requested.

Claims 17, 18, 32, 33, 47, and 48 have been cancelled. Thus, the claims under examination are claims 1-16, 19-31, and 34-46.

The Examiner rejected claims 17, 18, 32, 33, 47, and 48 under 35 U.S.C. §112, second paragraph, as being indefinite because these claims recite how to use the claimed device, rather than further limiting the structure recited in the claims from which they depend. Office Action at 2. These claims have been cancelled since the uses recited in these claims are embraced by the device claims, which cover any use of the device. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-3 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent 5,235,191 to Miller in view of U.S. Patent 4,896,344 to Grady. This ground for rejection is respectfully traversed, and reconsideration is requested in view of the following comments.

The Office considers that it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ in Miller's system a light intensifier, such as that taught by Grady, in order to improve image sensitivity. Office Action 2-3. Applicant courteously submits that there would have been no motivation to combine the teachings of Miller and Grady as suggested.

Miller provides a solution to the problem of image intensity with a specific scintillating screen. This scintillating screen is the cornerstone of Miller's invention.

Miller's screen is provided to convert nearly 100% of x-rays into light. See, e.g., col. 3, lines 56-62, ("The scintillating screen of the invention is operable to convert nearly 100% of the x-ray photons, which strike it to visible light."); col. 4, lines 47-49, ("The combination of rare earth elements in the SiO₂ base result in a conversion of x-ray photons to light in excess of 99%."); and col. 5, lines 38-40. ("The screen of the invention, as previously noted, converts nearly 100% of the x-ray photons to visible light.") This screen thus provides, according to Miller, a breakthrough performance increase compared with existing systems. The conversion rate was only 35-40% for systems prior to Miller, but nearly 100% with Miller's device. See, e.g., col. 1, lines 26-28, and col. 6, lines 2-6 of Miller ("This enables nearly 100% of the x-ray photons to be converted into light, as compared to the normal 35-40% conversion that takes place in conventional, known scintillating screens."). Thus, the Miller disclosure is clearly presented as providing a totally satisfactory solution to the problem of conversion into light and the associated light intensity.

In this context, employing an image intensifier in Miller's device is not relevant. As the Federal Circuit indicated in *In re Sernaker*, 702 F.2d 989, 994, 217 U.S.P.Q. 1, 6, obviousness can usefully be evaluated by asking whether a combination of the teachings of any or all of the references would have suggested, expressly or by implication, the possibility of achieving further improvement by combining their teachings along the line of the invention at issue. A person of ordinary skill in the art would not have had any motivation to employ the image intensifier of Grady in association with the system of Miller. Miller already presents a system that totally solves the issue of intensity.

In addition, applicant's invention does not cover the mere use of an image intensifier in a x-ray imaging device. The position of the elements, which build up the optical chain 20, is indeed a significant feature of the invention. The optical chain 20, as recited in the device claims, comprises :

- (a) enlargement means 22 directly exposed to primary images generated by conversion means, and
- (b) intensification assembly 23 located downstream of these enlargement means.

This specific arrangement is associated with well-defined advantages:

It is important to note here that according to the invention the resolution of the image is in no way altered by modifying the degree of enlargement, given that the assembly 22 which is composed solely of optical elements does not carry out any discretization of the image.

On the basis of images having a widened field, it is thus possible for the radiologist to identify zones of specific interest, then to move the optical elements and to zoom in on the chosen zone(s), while obtaining at the output of the assembly 22 an image whose resolution is in no way altered.

See, e.g., page 10, lines 11-24 of the application. There is in any event no indication whatsoever to adopt the specific arrangement of the present invention, as recited in claim 1 of the application.

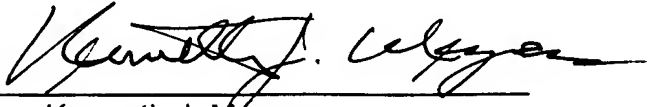
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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